

Sheet 1 of 1

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

Date Submitted to PTO: September 24, 2001

ATTY DOCKET NO.
2000_1390SERIAL NO.
09/677,420APPLICANT
Mitsuaki OSHIMA et al.FILING DATE
October 5, 2000GROUP
2614

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA		SEP 24 2001 CPE JCI				
	AB						
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Technology Center 2600
SEP 25 2001

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AS	AJ	04-196822	7-16-92	Japan	—	—	abstract
AS	AK	0 506 400	9-30-92	Europe	—	—	X
	AL						
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OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

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DATE CONSIDERED

05.09.02

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U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

Date Submitted to PTO: April 10, 2001

ATTY DOCKET NO.
2000_1390SERIAL NO.
09/677,420APPLICANT
Mitsuaki OSHIMA et al.FILING DATE
October 5, 2000GROUP
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APR 11 2001
Technology Center 2600

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
ASV	AA	5,565,926	10-15-96	Bryan et al.	—	—	
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FOREIGN PATENT DOCUMENTS

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ASV	AJ	2-166979	6-27-90	Japan	—	—	abstract
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OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

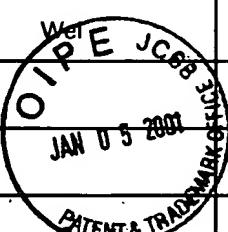
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Sheet 1 of 1				ATTY DOCKET NO. 2000_1390	SERIAL NO. 09/677,420	RECEIVED	
FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)				APPLICANT Mitsuaki OSHIMA et al.			
Date Submitted to PTO: January 5, 2001				FILING DATE October 5, 2000	GROUP Technology Center 2600 2614		
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AS	AA	5,243,629	9-7-93		—	—	
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FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AS	AJ	64-74836	3-20-89	Japan	—	—	abstract
↓	AK	53-108215	9-20-78	Japan	—	—	abstract
↓	AL	63-28145	2-5-88	Japan	—	—	abstract
↓	AM	64-68144	3-14-89	Japan	—	—	abstract
AS	AN	5-218978	8-27-93	Japan	—	—	X
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
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EXAMINER		<i>Amande</i>		DATE CONSIDERED		05.09.02	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified)		ATTY DOCKET NO. 2000_1390	SERIAL NO. NEW
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Mitsuaki OSHIMA et al.	
LIST OF REFERENCES CITED BY APPLICANT(S) <i>(Use several sheets if necessary)</i>		FILING DATE October 5, 2000	GROUP
Date Submitted to PTO: October 5, 2000			

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AS	AA	5,311,550	5-10-94	Fouche et al.	—	—	
	AB	4,630,287	12-16-86	Armstrong	—	—	
	AC	4,271,527	6-2-81	Armstrong			
	AD	5,050,188	9-17-91	Dirr			
	AE	5,398,073	3-14-95	Wei			
	AF	5,452,015	9-19-95	Hulyalkar			
	AG	5,565,932	10-15-96	Gitta et al.			
	AH	5,481,412	1-2-96	Bannai et al.			
	AI	3,909,721	9-30-75	Bussgang et al.	—	—	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AJ	0365431	4-25-90	EP	—	—	X
	AK	0485105	5-13-92	EP	—	—	X
	AL	92/14343	8-20-92	WO	—	—	X
AS	AM	89/08366	9-8-89	WO	—	—	X
AS	AN	0031193	7-1-81	EP	—	—	X

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

AS	AO	Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands", Japan Telecommunications Review, January 1982, vol. 24, no. 1, pages 65-73.
	AP	M. Pecot et al., "Compatible Coding of Television Images, Part 2. Compatible System", Signal Processing Image Communication, October 2, 1990, no. 3, pages 259-268.
AS	AQ	Mitsuaki Oshima, "Constellation-Code Division Multiplex for Digital HDTV", IEEE, 1992, pages 1086-1092.

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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AS	AA	4,227,152	10-7-80	Godard et al.	—	—	
	AB	4,525,846	6-25-85	Bremer et al.			
	AC	4,751,478	6-14-88	Yoshida			
	AD	4,891,806	1-2-90	Farias et al.			
	AE	4,903,125	2-20-90	Parker			
	AF	4,937,844	6-26-90	Kao			
↓	AG	5,164,963	11-17-92	Lawrence et al.			
AS	AH	5,555,275	9-1996	Oshima	—	—	
	AI						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	NO
AS	AJ	0311188	4-12-89	EP	—	—	X	
↓	AK	0329158	8-23-89	EP			X	
↓	AL	64-5135	1-10-89	JP			X	
↓	AM	63-28145	2-5-88	JP			X	
AS	AN	62-133842	6-17-87	JP	—	—	X	

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

AS	AO	Tricia Hill et al., "A Performance Study of NLA 64-State QAM", IEEE Transactions on Communications, vol. COM-31, June 1983, no. 6, pages 821-826.
↓	AP	Hideki Ishio et al., "A Proposal of a Carrier Digital Transmission System Using Multi-Level APSK", pages 1-20.
↓	AQ	Shanmugam, "Digital and Analog Communication Systems" 1979, p. 272.

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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
XJS	AA	5,105,442	4-14-92	Wei	1	1	
	AB	4,048,572	9-13-77	Dogliotti et al.			
	AC	5,282,019	1-25-94	Basile et al.			
	AD	5,311,547	5-10-94	Wei			
	AE	5,267,021	11-30-93	Ramchandran et al.			
	AF	5,038,219	8-6-91	Yamashita et al.			
	AG	5,087,975	2-11-92	Citta et al.			
	AH	5,086,340	2-4-92	Citta et al.	1	1	
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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AJ	53-137657	12-1-78	JP	1	1	X
	AK	0282298	9-14-88	Europe			X
	AL	0392538	10-17-90	Europe			X
	AM	0490552	6-17-92	Europe			X
	AN	0506400A2	9-30-92	Europe	1	1	

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AO	Khaled Fazel et al., Combined multilevel coding and multiresolution modulation, February 8, 1993, Pages 1081-1085
↓	AP	P. Hoeher et al., Performance of an RCPC-Coded OFDM-based Digital Audio Broadcasting (DAB) System, IEEE Global Telecommunications Conference "Globecom '91", December 2-5, 1991, Vol. 1 of 3, Pages 2.1.1 - 2.1.7
XJS	AQ	K. M. Uz et al., Combined multiresolution source coding and modulation for digital broadcast of HDTV*, 1992, Pages 283-292

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Date Submitted to PTO: October 5, 2000			

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AS	AA	5,142,353	8-25-92	Kageyama et al.	1	1	
	AB	5,197,061	3-23-93	Halbert-Lassalle et al.	1	1	
	AC	5,291,289	3-1-94	Hulyalkar et al.	1	1	
AS	AD	5,166,924	11-24-92	Moose	1	1	
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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AS	AJ	0448492A1	9-25-91	Europe	1	1	
	AK	0485108A2	5-13-92	Europe	1	1	
	AL	0525641A2	2-3-93	Europe	1	1	
	AM	0540231A2	5-5-93	Europe	1	1	
AS	AN	0531046A2	3-10-93	Europe	1	1	

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

AS	AO	K. M. Uz et al., Multiresolution Source and Channel Coding for Digital Broadcast of HDTV, 1992, Pages 61-69.
	AP	Nambi Seshadri et al., Multi-Level Block Coded Modulations with Unequal Error Protection for the Rayleigh Fading Channel, Vol. 4, No. 3, May-June 1993, Pages 325-334.
AS	AQ	William F. Schreiber, Spread-Spectrum Television Broadcasting, SMPTE Journal, August 1992, Pages 538-549.

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	AH						
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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
<i>AS</i>	AJ	85/04541	10-10-85	WO	—	—	
	AK						
	AL						
	AM						
	AN						

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>AS</i>	AO	Martin Vetterli et al., Multiresolution Coding Techniques for Digital Television: A Review, Multidimensional Systems and Signal Processing, Volume 3, May 1992, Pages 161-187.
<i>AS</i>	AP	Ezio Biglieri et al., Introduction to Trellis-Coded Modulation with Applications, April 6, 1992, Pages 173-207.
<i>AS</i>	AQ	English Language Abstract of European Patent No. 93 30 7575

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			APPLICANT Mitsuaki OSHIMA et al.				
			FILING DATE October 5, 2000	GROUP			
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AS	AA	4,636,876	1-13-87	Schwartz	—	—	
—	AB	4,855,692	8-8-89	Kennard et al.	—	—	
—	AC	4,873,701	10-10-89	Tretter	—	—	
—	AD	4,958,360	9-18-90	Sari	—	—	
—	AE	5,115,453	5-19-92	Calderbank et al.	—	—	
AS	AF	5,168,509	12-1-92	Nakamura et al.	—	—	
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FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AS	AJ	0122805	10-24-84	EP	—	—	X
AS	AK	63-180280	7-25-88	JP	—	—	abstract
	AL						
	AM						
	AN						
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
AS	AO	Kazuhiko Nitadori, Synthesis of Multichannel Orthogonal VSB Signals by Quadrature Method, 1976 International Conference on Communications, June 14-16, 1976, Volume 1, Pages 3-25 - 3-29.					
—	AP	Thomas M. Cover, Broadcast Channels, IEEE Transactions on Information Theory, January 1972, Pages 2-14					
AS	AQ	"Optimum Weighted PCM for Speech Signals", Sundberg, IEEE Transactions on Communications, Volume COM-26, No. 6, June 1978, Pages 872-881.					
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